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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,428	05/23/2001	Peter Lin	D&F-015	2672

22888 7590 06/08/2004

BEVER HOFFMAN & HARMS, LLP  
TRI-VALLEY OFFICE  
1432 CONCANNON BLVD., BLDG. G  
LIVERMORE, CA 94550

EXAMINER

MASKULINSKI, MICHAEL C

ART UNIT	PAPER NUMBER
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2113

DATE MAILED: 06/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PR24

<b>Office Action Summary</b>	Application No. 09/864,428	Applicant(s) LIN ET AL.	
	Examiner Michael C Maskulinski	Art Unit 2113	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-22 is/are allowed.
- 6) ☒ Claim(s) 1,2,5,7,9-11,13 and 14 is/are rejected.
- 7) ☒ Claim(s) 3,4,8 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**Final Office Action**

***Claim Objections***

1. In view of the recent amendments the objections to claims 2 and 7 have been removed.

***Claim Rejections - 35 USC § 102***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1, 5, 9, 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Alexander, U.S. Patent 6,393,559 B1.

Referring to claim 1:

- a. In column 2, lines 15-22, Alexander discloses that the boot initialization progress of the BIOS is recorded. The boot initialization progress provides an indication of the location in the BIOS initialization code of where the boot initialization failed (receiving at least one signal in response to said event and recording said at least one signal in a first recorder in sequence).
- b. In column 4, lines 3-15, Alexander discloses that if the boot initialization code fails before video was initialized, the BIOS would provide beep codes to indicate where the boot initialization code failed. Beep codes, which are sounds emanated by the computer are provided when not enough of the hardware is initialized to provide an identification number or a written label of the failure. For example, to describe the fact that the serial port test failed, a user may hear 1 beep, followed by 2

beeps, followed by 3 beeps to indicate this fact (accessing said at least one signal in sequence and reporting said event by transmitting said sound signal according to a corresponding sound data value selected, in response to the assessing of at least one signal, wherein each of the plurality of sound data values is associated with a corresponding signal). Further, it is inherent to the system that the beep codes are programmed into the BIOS, therefore, the plurality of sound data values are pre-recorded in a second recorder.

Referring to claim 5, in column 3, lines 2-9, Alexander discloses that the self-healing BIOS can be placed in part and/or in whole in one or more of the memory modules. The self-healing BIOS includes intelligence that is built into the BIOS booting process to record steps involved in the booting process (wherein said first recorder is a first memory).

Referring to claim 9, a controller is inherent to the memory system of Alexander.

Referring to claim 10, in column 4, lines 3-15, Alexander discloses that the BIOS provides beep codes to indicate where the boot initialization code failed. Beep codes are sounds emanated by the computer (wherein said sound data value corresponding to said at least one signal and recorded in said second recorder are further accessed and transmitted to a speech circuit by said controller, thereby transmitting said sound signal to report said event).

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander, U.S. Patent 6,393,559 B1.

Referring to claim 2, in column 4, lines 3-15, Alexander discloses providing beep codes to indicate where the boot initialization code failed (BIOS) and in column 4, lines 24-51, Alexander teaches identifying a card that caused the boot to fail (a hardware monitor). However, Alexander doesn't explicitly disclose transmitting a signal from a motherboard. The Examiner takes Official Notice that it is well known in the art of computer systems to have a motherboard indicate a failure upon start up of the BIOS. An example is the beep code provided by IBM BIOS to indicate a motherboard issue. It would have been obvious to one of ordinary skill at the time of the invention to include the motherboard indicator into the system of Alexander. A person of ordinary skill in the art would have been motivated to make the modification because failure of a motherboard will result in the system being able to boot, therefore it is important to indicate the motherboard as failing in order to resolve the problem and successfully boot the system.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander, U.S. Patent 6,393,559 B1 as applied to claim 1 above, and further in view of Lin, U.S. Patent 5,835,885.

Referring to claim 7, in column 4, lines 3-15, Alexander discloses indicating failure of boot initialization code and the use of beep codes to indicate

the failure. However, Alexander doesn't explicitly disclose sounding an alarm for other events and failures such as an overheated CPU. In column 2, lines 44-46, Lin discloses that an over temperature actuating circuit is actuated and outputs a signal (LO) to an over temperature alarm circuit for energizing it. In column 2, lines 46-50, Lin discloses that at this time since both the pre-located functional ON/OFF circuit and the over temperature alarm circuit are cascadelly grounded, an audio frequency alarm circuit is energized and outputs a sound alarm. It would have been obvious to one of ordinary skill at the time of the invention to include the temperature detection circuit of Lin into the system of Alexander. A person of ordinary skill in the art would have been motivated to make the modification because *as the temperature of a CPU becomes too high, not only the life of the computer will be affected, but the computer may even break down which is catastrophic in the fields such as national defense security, nuclear engineering or medical application etc.* (see Lin: column 1, lines 23-27).

7. Claims 11, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander, U.S. Patent 6,393,559 B1 as applied to claim 1 above, and further in view of Shin et al., US 2002/0062437 A1.

Referring to claim 11, in column 4, lines 3-15, Alexander discloses that the BIOS provides beep codes to indicate where the boot initialization code failed. Beep codes are sounds emanated by the computer. However, Alexander doesn't explicitly disclose that the plurality of sound data values recorded in said second recorder are accessed by said controller with software, and said sound signal reporting said event is transmitted with an on-line program. In paragraph

0014, Shin et al. disclose a control method for controlling a computer, the control method comprising the steps of storing sound data depending upon a system state of a computer; detecting the system state when power is supplied to the computer; generating a sound command signal depending upon the system state; and outputting the sound data according to the sound command signal. It would have been obvious to one of ordinary skill at the time of the invention to include the control method of Shin et al. into the system of Alexander. A person of ordinary skill in the art would have been motivated to make the modification because it is desirable to provide a message indicating the state of the computer to help in diagnostics (see Shin et al.: paragraph 0010).

Referring to claim 13, in Figure 2, Shin et al. disclose that second recorder is a second memory.

Referring to claim 14, in paragraph 0036, Shin et al. disclose that sound data includes music, spoken words, and other audio data (said sound signal is changed to sounds of different sentences in different languages with an on-line program via a chip).

#### ***Allowable Subject Matter***

8. Claims 3, 4, 6, 8, and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 15-22 are allowed.

#### ***Response to Arguments***

10. Applicant's arguments filed April 2, 2004 have been fully considered but they are not persuasive.

11. On page 7, under the section Rejection under 35 U.S.C. §102(e), the Applicant argues, "it is to be noted that Alexander does not disclose or teach that a recorder is provided to pre-record sound data corresponding to the at least one signal in response to the event. Referring to Column 4, lines 3-15 of Alexander, when the serial port test failed, a user may hear one beep, followed by two beeps, followed by three beeps to indicate this fact. It means that according to the teachings of Alexander, there is no specific sound in response to a specific event (emphasis by Applicant). The Examiner respectfully disagrees. The claim language of claim 1, states having a plurality of sound data values. As most broadly and reasonably interpreted, this can mean a number of sounds emanated. The claim language does not specifically claim specific tones, tunes, pitches, chords, or anything else of the like. Further, it should be noted that Macintosh startup tones are different tones for indicating different errors. Also, programming the BIOS with beep codes indicates that the beep codes are pre-recorded.

### ***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory




action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C Maskulinski whose telephone number is (703) 308-6674. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MM

  
ROBERT BEAUSOLIEL  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100